

NIV. REPORT ON A COLLECTION OF REPTILES AND BATRACHIANS FROM JAVA.

By N. ANNANDALE, D.Sc., F.A.S.B., (*Zoological
Survey of India*).

Mr. H. C. Robinson has kindly given me the opportunity of examining a collection of reptiles and Batrachia made by him in February, 1916, at Tjibodas, in the mountains of Western Java, at altitudes between 4,700 and 6,500 feet. He has further permitted me to retain in the Indian Museum a first set of all the specimens, including the type of the only new species, a frog of the interesting genus *Nyctixalus*, Boulenger.

There is no recent monograph on the herpetology of Java, but both the reptiles and the Batrachia are well known and Tjibodas has been a favourite collecting station. In his memoir entitled "A Contribution to the Zoögeography of the East Indian Islands" Barbour¹ has discussed the distribution of both groups in reference to the island as a whole, but, as in most eastern countries, there is still much to be done in the study of local faunas.

Mr. Robinson's collection is evidently representative of the local fauna of the district in which it was made. It includes specimens of 13 species of reptiles and of 13 of batrachians, as follows:—

REPTILIA.

Lizards—

<i>Gonyocephalus chamaeleontinus</i> (Laur.)	10 specimens.
<i>Calotes tympanistriga</i> (Gray)	... 10 ..
<i>Lygosoma temminckii</i> , D. & B.	... 28 ..
<i>Mabuia multifasciata</i> (Kuhl.)	... 7 ..

Snakes—

<i>Tropidonotus chrysargus</i> , Schleg.	... 2 specimens.
<i>Zamenis korros</i> (Schleg.)	... 1 juv.
<i>Oligodon bitorquatus</i> , Boie	... 1 specimen.
<i>Calamaria leucocephala</i> , D. & B. ²	... 1 ..
<i>Calamaria linnaei</i> , Boie	... 3 specimens.
<i>Psammodynastes pulverulentus</i> , Boie	... 3 ..
<i>Bungarus candidus</i> , Linn.	... 1 specimen.
<i>Doliophis intestinalis</i> (Laur.)	... 1 ..
<i>Ancistrodon rhodostoma</i> (Boie)	... 2 specimens.

(1) *Mem Mus Zool Harvard*, XLIV, No. 1 (1912).

(2) A me and specimen in which the greater part of the ventral surface as well as the whole of the dorsal and lateral surfaces, is darkened.

BATRACHIA.

<i>Rana grunniens</i> , Daudin	...	2 specimens.
<i>Rana kuhlii</i> , D. & B.	...	2 .. (juv.).
<i>Rana limnocharis</i> , Wiegmann	...	7 ..
<i>Rana javanica</i> , Horst.	...	1 specimen.
<i>Rana chalconota</i> (Schleg.)	..	23 specimens.
<i>Rana jerboa</i> (Günther)	...	6 ..
<i>Ixalus aurifasciatus</i> (Schleg.)	...	21 ..
<i>Nyctixalus robinsoni</i> , sp. nov.	...	3 ..
<i>Microhyla annectens</i> , Boulenger	...	17 ..
<i>Bufo asper</i> , Gravenh.	...	1 specimen.
<i>Bufo cruentatus</i> , Tschudi	...	20 specimens.
<i>Megalophrys husseltii</i> (Tschudi)	...	3 ..
<i>Megalophrys montana</i> , Kuhl	...	14 ..

I have nothing further to say about the reptiles, all of which are well-known species. Descriptions of the lizards will be found in de Rooij's volume¹ on the Indo-Australian lizards and Chelonia, and of the snakes in the British Museum Catalogue.

The frogs and toads call for comment or description in several instances, the excellent state of preservation of most of Mr. Robinson's specimens permitting points hitherto obscure to be elucidated.

FAMILY RANIDAE.

Genus RANA, Linné.

RANA JAVANICA, Horst.

1883. *Rana macularia*, var. *javanica*. Horst, *Notes Leyden Mus.* V, p. 243.

1891. *Rana nicobariensis*, Boulenger, *Ann. Mag. Nat. Hist.* (6) VIII, p. 291.

1906. *Rana javanica*, van Kampen, *Weber's Zool. Ergeb. Nied. Ost.-Ind.* IV, p. 392.

1912. *Rana nicobariensis*, Boulenger (in part), *Faun. Malay Pen., Rept.*, p. 240.

1912. *Rana javanica*, Barbour, *Mem. Mus. Zool. Harvard XLIV*, p. 169.

There is a single specimen in the collection; it is 32 mm. long from the tip of the snout to the vent. I have compared it with the types of Stoliczka's *R. nicobariensis*, which are faded but otherwise in good condition. It differs from them in most of the points noted by van Kampen as specific, notably

(1) *The Reptiles of the Indo-Australian Archipelago I.* (Leiden: 1915).

in the broader interorbital space and narrower web to the toes. The colouration is also strikingly different. The back is pinkish buff with sparsely scattered small round black spots and with a faint pale middorsal line extending forwards from the vent about half way to the shoulders. The sides of the head and the anterior half of the body are black, but both lips are white, the white area on the upper lip extends backwards as a broad line as far as the axilla and there is a narrow white line running forwards from the upper eyelid to the tip of the snout. The sides of the posterior half of the body are a little darker than the back and bear numerous black spots; the area thus coloured is separated from the dorsal surface by a thin black line. The fore limbs are pale with indistinct dark spots of small size, but the hind limbs are darker than the back and are marked with incomplete dark cross-bars. A thin black line extends along the middle of the upper surface of the thigh and behind it the skin is spotted. The whole of the ventral surface is unspotted.

A specimen of *R. nicobariensis* from the Jalor Caves, near Biserat in Peninsular Siam on the other hand, agrees fairly well with the type of the species.

Genus IXALUS, D. & B.

Stejneger* has shown that in the strict letter of the law the name of this genus should be *Philautus*, Gistel. Four species have been recorded from Java, namely *flavosignatus* (Boettger), *aurifasciatus* (Schlegel), *vittigera* (Boulenger) and *pallidipes* (Barbour). After some doubt I have decided that the large series of specimens in Mr. Robinson's collection all represent the second of these.

IXALUS AURIFASCIATUS (Schlegel).

1844. *Hyla aurifasciata*, Schlegel, *Abbild.*, p. 27, pl. ix., fig. 4.

1882. *Ixalus aurifasciatus*, Boulenger, *Cat. Batr. Sal. B. M.*, p. 100.

Schlegel's figure gives a very good idea of the facies and proportions, but it is evident from the specimens before me that the colouration is almost as variable as in *I. variabilis* from Ceylon and South India. None of these specimens happen to bear the golden band across the forehead from which the specific name is derived. There are two large specimens (snout to vent 27 mm.) of very remarkable colouration. In one the whole of the dorsal surface is black, with irregular yellow streaks which converge inwards from the sides. In the other the colours are the same but the yellow predominates over the black. There seems to be no vocal sac in the adult male.

* *Proc. U. S. Nat. Mus.* XXVIII, p. 346 (1905)

Genus NYCTIXALUS, Boulenger.

1882. *Nyctixalus*, Boulenger, *Ann. Mag. Nat. Hist.* (5) X, p. 35.

1912. *Nyctixalus*, Barbour, *Mem. Mus. Zool. Harvard* XLIV (1), p. 70.

The only form hitherto assigned to the genus is the type-species *N. margaritifer*, Boulenger. It is recorded as being from "the East Indies." Barbour examined a specimen from Tjibodas and published a figure, which is certainly incorrect. (*op. cit.*, pl. viii, fig. 32). He noted certain peculiarities, however, that also occur in Mr. Robinson's specimens. The differences must, therefore, be specific and I describe the Javanese form as a new species, under the name

NYCTIXALUS ROBINSONI, *sp. nov.*

Head large, triangular; snout pointed, a little longer than the orbit; nostril about half way between the eye and the tip of the snout, rather prominent. Tongue deeply notched, without free papilla. No vocal sacs. Interorbital space flat, broader than upper eyelid. Tympanum hidden, very small. A strong fold from the upper eyelid to the shoulder. Dorsal surface of head and body with scattered rounded tubercles; eyelid tubercular; ventral surface of head and body coarsely tubercular. Hind limbs long; tibiotarsal articulation reaching the anterior margin of the eye or the tip of the snout. Subarticular tubercles poorly developed; an obscure inner metatarsal tubercle. Discs on fingers and toes at least as large as the tympanum. Digits short; first finger not extending as far as second; toes about $\frac{1}{3}$ webbed; no web on the fore feet.

Length of head and body in type-specimen 20 mm.

Dorsal surface dark grey or brown, obscurely mottled; a silvery cross-bar sometimes present between the eyes. Flanks mottled with black and white. Hind limbs with irregular brown cross-bars. Ventral surface speckled with grey or entirely infuscated.

The species differs from *N. margaritifer* in its small hidden tympanum, in the position of the nostril and probably in other points. The iris can apparently be closed completely over the pupil, but Barbour's figure represents the opening as very large and transversely oval, thus completely ignoring the essential generic character, which is the vertical form of the slit. Apart from this character and from its darker colouration the species closely resembles *Ixalus aurifasciatus*.

Locality. Tjibodas, Java: alt. 4,700-6,500 feet (February, 1916).

Type-specimen. No. 18,337 Rept., Zool. Survey India. Cotypes in the Selangor Museum.

FAMILY PELOBATIDAE.

Genus MEGALOPHRYS, Kuhl.

MEGALOPHRYS MONTANA, Kuhl.

1912. *Megalophrys montana*, Boulenger. *Faun Malay Pen., Rept.*, p. 277.

1912. *Megalophrys montana*, Barbour, *Mem. Mus. Zool. Harvard XLIV* (1) p. 77, pl. vii, fig. 30 (coloured figure).

In Mr. Robinson's series there are several specimens with minute appendages on the eyelids and snout and two young individuals with these appendages so well-developed that they appear to represent a form intermediate between *M. montana* and *M. nasuta*. I doubt, therefore, whether *M. nasuta* (Schleg.) is more than a variety of *M. montana*. Kuhl.